

DOCKET NO.: ISIS-4847



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PATENT

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:

Muthiah Manoharan

Serial No.: 09/965,551

Group Art Unit: Not Yet Assigned

Filing Date: September 27, 2001

Examiner: Not Yet Assigned

**For: CARBOHYDRATE OR 2'-MODIFIED OLIGONUCLEOTIDES HAVING
ALTERNATING INTERNUCLEOSIDE LINKAGES**

DATE OF DEPOSIT: November 5, 2001

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Assistant Commissioner for Patents
Washington DC 20231

Dear Sir:

INFORMATION DISCLOSURE STATEMENT

Pursuant to 37 C.F.R. §1.56 and in accordance with 37 C.F.R. §§1.97-1.98, information relating to the above-identified application is hereby disclosed. Inclusion of information in this statement is not to be construed as an admission that this information is material as that term is defined in 37 C.F.R. §1.56(b).

In accordance with §1.97(b), since this Information Disclosure Statement is being filed either within three months of the filing date of the above-identified application, within three months of the date of entry into the national stage of the above identified application as set forth in §1.491, before the mailing date of a first Office Action on the merits of the above-identified application, or before the mailing date of a first office action after the filing of request for continued examination under §1.114, no additional fee is required.

- In accordance with §1.129(a), this Information Disclosure Statement is being filed in connection with the first or second After Final Submission, therefore:
 - Certification in Accordance with §1.97(e) is attached; or
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- Copies of each of the references listed on the attached Form PTO-1449 are enclosed herewith.
- Copies of references listed on the attached Form PTO-1449 are enclosed herewith EXCEPT THAT:
 - In view of the voluminous nature of references [list as appropriate], and the likelihood that these references are available to the Examiner, copies are not enclosed herewith.

In accordance with §1.98(d), copies of the following references listed on the attached Form PTO-1449 are not enclosed herewith because they were previously cited by or submitted to the U.S. Patent and Trademark Office in patent application(s) for which a claim for priority under 35 U.S.C. §120 have been made in the instant application:

Copies of references **AA-CO, CQ-DP, DR, DS, DU-DX, DZ-ES**, listed on the attached Form PTO-1449 were previously cited by or submitted to the Patent and Trademark Office in prior application Serial No. **09/349,007**, filed **July 7, 1999**.

If any of the foregoing publications are not available to the Examiner, Applicant will endeavor to supply copies at the Examiner's request.

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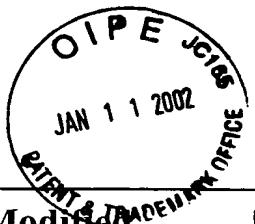
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There are no listed references which are not in the English language.

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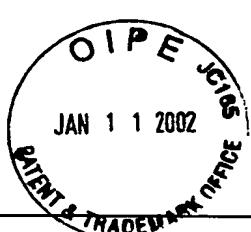


Form PTO-1449 Modified		#7	Docket No. ISIS-4847	Serial No. 09/965,551
List of Patent and Publications Cited by Applicant (Use several sheets if necessary)		Applicant Muthiah Manoharan		
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	AH	Bernhard et al., "Direct Evidence Linking Expression of Matrix Metalloproteinase 9 (92-kDa gelatinase/collagenase) to the metastatic phenotype in transformed rat embryo cells," <i>Proc. Natl. Acad. Sci. U.S.A.</i> , 1994 , 91, 4293-4297		
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	AK	Cook, P.D., "Medicinal chemistry of antisense oligonucleotides - future opportunities", <i>Anti-Cancer Drug Design</i> , 1991 , 6, 585-607		
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*A copy of this reference will not be forwarded to the U.S. Patent and Trademark Office since it is believed to be too voluminous and easily obtainable.



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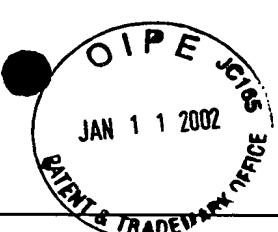


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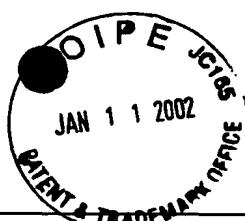
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Examiner Initial		Document No.	Date	Name	Class	Subclass
	DJ	3,687,808	08/29/72	Merigan et al.	195	28
	DK	4,689,320	08/25/87	Kaji	514	44
	DL	4,806,463	02/21/89	Goodchild et al.	435	5
	DM	5,004,810	04/02/91	Draper	536	27
	DN	5,166,195	11/24/92	Ecker	514	44
	DO	5,194,428	03/16/93	Agrawal et al.	514	44
	DP	5,212,295	05/18/93	Cook	536	26.7
	DQ	5,220,007	06/15/93	Pederson et al.	536	23.1
	DR	5,242,906	09/07/93	Pagano et al.	514	44
	DS	5,248,670	09/28/93	Draper et al.	514	44
	DT	5,264,423	11/23/93	Cohen et al.	514	44
	DU	5,442,049	08/15/95	Anderson et al.	536	24.5

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Examiner Initial		Document No.	Date	Country	Translation	
					YES	NO
	DV	WO 93/07883	04/29/93	PCT	X	
	DW	WO 93/18052	09/16/93	PCT	X	
	DX	WO 94/08003	04/14/94	PCT	X	
	DY	WO 95/13834	05/26/95	PCT	X	

EXAMINER	DATE CONSIDERED



Form PTO-1449 Modified List of Patent and Publications Cited by Applicant (Use several sheets if necessary)		Docket No. ISIS-4847	Serial No. 09/965,551
		Applicant Muthiah Manoharan	
U.S. Department of Commerce Patent and Trademark Office		Filing Date September 27, 2001	Group Not Yet Assigned

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	DZ	5,457,189	10/10/95	Crooke et al.	536	24.5
	EA	5,514,577	05/07/96	Draper et al.	435	238
	EB	5,514,788	05/07/96	Bennett et al.	536	23.1
	EC	5,523,389	06/04/96	Ecker et al.	536	23.1
	ED	5,580,767	12/03/96	Cowsert et al.	435	172.3
	EE	5,582,972	12/10/96	Lima et al.	435	6
	EF	5,582,986	12/10/96	Monia et al.	435	6
	EG	5,587,361	12/24/96	Cook et al.	514	44
	EH	5,591,600	01/07/97	Ecker	435	69.1
	EI	5,591,623	01/07/97	Bennett et al.	435	240.2
	EJ	5,591,720	01/07/97	Anderson et al.	514	44
	EK	5,599,797	02/04/97	Cook et al.	514	44
	EL	5,607,923	03/04/97	Cook et al.	514	44
	EM	5,620,963	04/15/97	Cook et al.	514	44

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Examiner Initial		Document No.	Date	Country	Translation	
					YES	NO

EXAMINER	DATE CONSIDERED

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List of Patent and Publications
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U.S. Department of Commerce
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Docket No.
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Serial No.
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Applicant
Muthiah Manoharan

Filing Date
September 27, 2001

Group
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	EN	5,658,891	08/19/97	Draper et al.	514	44
	EO	5,661,134	08/26/97	Cook et al.	514	44
	EP	5,681,747	10/28/97	Boggs et al.	435	375
	EQ	5,681,944	10/28/97	Crooke et al.	536	24.5
	ER	5,691,461	11/25/97	Ecker et al.	536	24.32
	ES	5,670,633	09/23/97	Cook et al.	536	23.1
	ET	5,877,309	03/02/99	Dean et al.	536	24.5
	EU	5,955,443	09/21/99	Bennett et al.	514	44
	EV	5,985,558	11/16/99	Dean et al.	435	6
	EW	6,111,094	08/29/00	Bennett et al.	536	024
	EX	6,127,533	10/03/00	Cook et al.	536	23.1
	EY	6,166,197	12/26/00	Cook et al.	536	024
	EZ	6,172,209	01/09/01	Manoharan et al.	536	023
	FA	6,271,358	08/07/01	Manoharan et al.	536	023
	FB	6,277,967	08/21/01	Manoharan	536	22.1
	FC	6,300,491	10/09/01	Bennett et al.	536	024

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Examiner Initial		Document No.	Date	Country	Translation	
					YES	NO

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